**In the Claims**

1. (Currently Amended) A method for processing information in a receiver of a multichannel optical communication system, comprising:

receiving a wavelength division multiplexed (WDM) signal having a symbol rate and comprising a plurality of non-intensity modulated optical information signals having a minimum channel spacing ~~comprising a multiple of the symbol rate within 0.4 to 0.6 of an integer~~ that is greater than (N+0.4)B and less than (N+0.6)B, where B comprises the symbol rate of the WDM signal and N comprises an integer;

demultiplexing the non-intensity modulated optical information signals from the WDM signal;

converting each of the non-intensity modulated optical information signals to an intensity modulated optical information signal using an asymmetric interferometer; and

recovering a data signal from the intensity modulated optical information signal.

2. (Currently Amended) The method of Claim 1, wherein the minimum channel spacing ~~comprises the multiple of the symbol rate within substantially 0.5 of the integer~~ is substantially equal to (N+0.5)B, where B comprises the symbol rate of the WDM signal and N comprises an integer.

3. (Original) The method of Claim 1, wherein the symbol rate comprises a transmission bit rate of the WDM signal.

4. (Original) The method of Claim 1, wherein the asymmetric interferometer comprises an asymmetric Mach-Zender interferometer.

5. (Original) The method of Claim 1, wherein the asymmetric interferometer comprises two interferometer paths having a path length difference operable to create a one symbol period shift in the optical information signal.

6. (Original) The method of Claim 1, further comprising recovering the data signal as an electrical signal using a dual detector.

7. (Original) The method of Claim 1, wherein the non-intensity modulated optical information signal comprises a frequency-modulated optical information signal.

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8. (Original) The method of Claim 1, wherein the non-intensity modulated optical information signal comprises a phase-modulated optical information signal.

9. (Original) An optical receiver for a wavelength division multiplex (WDM) optical communication system, comprising:

a demultiplexer operable to demultiplex a wavelength division multiplex (WDM) signal into a plurality of non-intensity modulated optical information signals;

an asymmetric interferometer operable to receive a corresponding one of the plurality of non-intensity modulated optical information signals;

the asymmetric interferometer operable to convert the non-intensity modulated optical information signal into an intensity modulated optical information signal; and

a detector operable to recover a data signal from the intensity-modulated optical information signal.

10. (Currently Amended) The optical receiver of Claim 9, wherein the WDM signal comprises a symbol rate and the non-intensity modulated optical information signals have a minimum channel spacing ~~comprising a multiple of the symbol rate within 0.4 to 0.6 of an integern~~ that is greater than (N+0.4)B and less than (N+0.6)B, where B comprises the symbol rate of the WDM signal and N comprises an integer.

11. (Original) The optical receiver of Claim 10, wherein the symbol rate comprises a bit rate of the WDM signal.

12. (Original) The optical receiver of Claim 9, wherein the asymmetric interferometer comprises a Mach-Zender interferometer.

13. (Original) The optical receiver of Claim 9, wherein the asymmetric interferometer comprises two interferometer paths having a path length difference operable to generate a one-bit shift in the optical information signal.

14. (Original) The optical receiver of Claim 9, wherein the detector comprises a balanced dual detector.

15. (Original) The optical receiver of Claim 9, wherein the non-intensity modulated optical information signal comprises a frequency-modulated optical information signal.

16. (Original) The optical receiver of Claim 9, wherein the non-intensity modulated optical information signal comprises a phase-modulated optical information signal.

17. (Currently Amended) A method for communicating information in a wavelength division multiplexed (WDM) optical communication system, comprising:

transmitting each of a plurality of a data signals using non-intensity modulation of a wavelength disparate carrier signal, the carrier signals having a minimum channel spacing ~~comprising a bit rate multiple within 0.4 to 0.6 of an integer~~ that is greater than (N+0.4)B and less than (N+0.6)B, where B comprises the symbol rate of the WDM signal and N comprises an integer;

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converting the non-intensity modulation of the carrier signals into an intensity modulation using an asymmetric Mach-Zender interferometer; and

recovering the data signal using a detector coupled to an output of the Mach-Zender interferometer.

18. (Original) The method of Claim 17, wherein the asymmetric Mach-Zender interferometer comprises a path length difference of one bit and complementary outputs.

19. (Original) The method of Claim 18, wherein the detector is a dual detector coupled to the complementary outputs of the Mach-Zender interferometer.

20. (Currently Amended) The method of Claim 17, wherein the minimum channel spacing ~~comprises the multiple of the symbol rate within substantially 0.5 of the integer~~ is substantially equal to (N+0.5)B, where B comprises the symbol rate of the WDM signal and N comprises an integer.